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EXAMINER

SOBUTKA, PHILIP

ART UNIT PAPER NUMBER

2618

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,530

Applicant(s)

SANCHEZ, JAVIER

Examiner

Philip J. Sobutka

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

2. The drawings are objected to because, as required by 37 CFR 1.84 (I), which addresses character of lines, numbers, and letters in drawings:

All drawings must be made by a process which will give them satisfactory reproduction characteristics. Every line, number, and letter must be durable, clean, black (except for color drawings), sufficiently dense and dark, and uniformly thick and well-defined. The weight of all lines and letters must be heavy enough to permit adequate reproduction. This requirement applies to all lines however fine, to shading, and to lines representing cut surfaces in sectional views. Lines and strokes of different thicknesses may be used in the same drawing where different thicknesses have a different meaning.

The lines and lettering in the drawings are not “clean” and “uniformly thick and well-defined”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the

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replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Applicant is advised that should claim 5 be found allowable, claim 7 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

4. Claims 6 and 10 are objected to because of the following informalities:

In claim 6, line 1: "claims 1" should be "claim 1;

In claim 10 line 1: "according to any one of claims 1" should be "according to claim 1".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1,2,4,5,7,10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mauney et al (US 6,484,027) in view of Grube et al (US 5,666,661).

Consider claim 1. Mauney teaches a method of selecting a network between telecommunication networks for at least two terminals capable of exchanging data in a first frequency band of a first telecommunication network with subscription (*Mauney teaches handsets, shown as item 42 in figures 2 and 3, that communicate in a first, cellular network as described in column 12, lines 47-52. Mauney also notes that use of the cellular system requires a subscription payment as described in column 12, lines 60-67, and column 4, lines 50-65*) and in a second frequency band of a second

telecommunication network without subscription (*Mauney teaches the handsets operating in direct handset to handset mode, which Mauney refers to as "free calls" using the unlicensed frequency bands as described on column 3, lines 25-37*).

While Mauney describes switching based on some range determination (*Mauney teaches determining range between handsets in figures 39A,B and, column 12, lines 7-18, column 16, lines 19-23, column 30, lines 47-67*), Mauney lacks a teaching of the method of switching between the bands comprising the steps of: estimating a distance between two terminals; and switching an operation frequency of each of these two terminals from the first frequency band to a second frequency band if the distance between the two terminals is smaller than a predetermined value.

In a similar mobile communication arrangement where mobile units are switched from system controlled frequencies to direct mobile to mobile frequencies (*Grube see column 1, lines 60-65*), Grube teaches a method comprising the steps of;

estimating a distance between two terminals (*Grube teaches determining distance at either the system controller or mobile terminal as shown in figure 2, item 201, figure 3, item 301 and as described on column 3, lines 5-10, 60-65*); and

switching an operation frequency of each of these two terminals from a first frequency band to a second frequency band if the distance between the two terminals is smaller than a predetermined value (*Grube teaches switching the units from a first frequency to a second frequency if the distance is less than a threshold as shown in figure 2, item 202, 203, 207, figure 3, item 302, 305 and described in column 2, lines 55-65, column 3, lines 47-50*). Grube teaches that with this method system communication

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resources may be more efficiently utilized by switching communication of short distance to a direct mode while reserving the system resources for wide range communication (*Grube see column 2, lines 25-30, and column 4, lines 10-16*).

It would have been obvious to one of ordinary skill in the art to modify Mauney to switch between the subscription and non-subscription bands using the estimated distance threshold method of Grube in order to provide that system communication resources may be more efficiently utilized by switching communication of short distance to a direct mode while reserving the system resources for wide range communication.

As to claim 2, note that in Mauney in view of Grube as applied to claim 1 above, the predetermined value represents a radius of coverage of the second telecommunication network (*Grube see column 3, lines 18-27*).

As to claim 4, note that in Mauney in view of Grube as applied to claim 1 above, the estimating of the distance between the two terminals is performed by the telecommunication network (*Grube teaches the determination of distance being performed at the network in figure 2 and column 3, lines 1-52*).

Regarding claims 5 and 7. *Note that these claims are duplicates, see claim objections above.*

Note that in Mauney in view of Grube as applied to claim 4 above, the network used in the estimating of the distance is the first telecommunication network (*note that in Grube it is the network that controls the system frequencies, which is the claimed first network that determines distance as shown in figure 2 and column 3, lines 1-52 and described in column 2, lines 15-30*).

Consider claim 10. (*Note the claim objection above*) Mauney in view of Grube as applied to claim 1 above, lack a teaching of wherein the first telecommunication network is either a UMTS network or a GSM network, and wherein the second telecommunication network is one of Bluetooth, Wi-Fi, and DECT networks.

Note that Mauney teaches the first network is a subscription cellular service (*Mauney see column 12, lines 19-22, 47-53*). Official Notice is taken that both GSM (Global System for Mobile communications) and UMTS (Universal Mobile Telecommunications System) are notoriously well know in the art as standards for cellular communication systems. Therefore it would have been obvious to one of ordinary skill in the art to modify Mauney to utilize UMTS or GSM networks in order to make the arrangement compatible with popular standards.

Note that Mauney teaches the second network utilizes non-cellular unlicensed frequencies (*Mauney see column 15, lines 28-32, column 17, lines 29-34*). Official Notice is taken that Bluetooth, Wi-Fi, and DECT (Digital Enhanced Cordless Telecommunications) are notoriously well know in the art as standards for non-cellular unlicensed frequency band communications. Therefore it would have been obvious to one of ordinary skill in the art to modify Mauney to utilize Bluetooth, Wi-Fi, and DECT in order to make the arrangement compatible with popular standards.

Consider claim 11. Mauney teaches a device for selecting a network between telecommunication networks for at least two terminals, each comprising a radio access

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module for communicating in a first frequency band of a first telecommunication network with subscription (*Mauney teaches handsets, shown as item 42 in figures 2 and 3, that communicate in a first, cellular network as described in column 12, lines 47-52. Mauney also notes that use of the cellular system requires a subscription payment as described in column 12, lines 60-67, and column 4, lines 50-65*) and in a second frequency band of a second telecommunication network without subscription (*Mauney teaches the handsets operating in direct handset to handset mode, which Mauney refers to as "free calls" using the unlicensed frequency bands as described on column 3, lines 25-37*),

While Mauney describes switching based on some range determination (*Mauney teaches determining range between handsets in figures 39A,B and, column 12, lines 7-18, column 16, lines 19-23, column 30, lines 47-67*), Mauney lacks a teaching of the device comprising means for estimating a distance between two terminals; and means for switching an operation frequency of each of the two terminals from the first frequency band to the second frequency band if the distance between the two terminals is smaller than a predetermined value.

In a similar mobile communication arrangement where mobile units are switched from system controlled frequencies to direct mobile to mobile frequencies (*Grube see column 1, lines 60-65*), Grube teaches a device comprising:

means for estimating a distance between two terminals (*Grube teaches determining distance at either the system controller or mobile terminal as shown in figure 2, item 201, figure 3, item 301 and as described on column 3, lines 5-10, 60-65*); and

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means for switching an operation frequency of each of these two terminals from a first frequency band to a second frequency band if the distance between the two terminals is smaller than a predetermined value (*Grube teaches switching the units from a first frequency to a second frequency if the distance is less than a threshold as shown in figure 2, item 202, 203, 207, figure 3, item 302, 305 and described in column 2, lines 55-65, column 3, lines 47-50*). Grube teaches that with this arrangement system communication resources may be more efficiently utilized by switching communication of short distance to a direct mode while reserving the system resources for wide range communication (*Grube see column 2, lines 25-30, and column 4, lines 10-16*).

It would have been obvious to one of ordinary skill in the art to modify Mauney to switch between the subscription and non-subscription bands using the estimated distance threshold arrangement means of Grube in order to provide that system communication resources may be more efficiently utilized by switching communication of short distance to a direct mode while reserving the system resources for wide range communication.

As to claim 12, note that in Mauney in view of Grube as applied to claim 11 above, there is means for calculating the distance between the two terminals according to spatial coordinates of the two terminals (*Grube teaches estimating the distance by calculating the distance using spatial coordinates, as described in Grube column*

Consider claim 13. Mauney teaches a mobile communication terminal, comprising:

a radio access module for communicating with at least a second terminal in a first frequency band of a first telecommunication network with subscription (*Mauney teaches handsets, shown as item 42 in figures 2 and 3, that communicate in a first, cellular network as described in column 12, lines 47-52. Mauney also notes that use of the cellular system requires a subscription payment as described in column 12, lines 60-67, and column 4, lines 50-65*) and in a second frequency band of a second telecommunication network without subscription (*Mauney teaches the handsets operating in direct handset to handset mode, which Mauney refers to as "free calls" using the unlicensed frequency bands as described on column 3, lines 25-37*), and

While Mauney describes switching based on some range determination (*Mauney teaches determining range between handsets in figures 39A,B and, column 12, lines 7-18, column 16, lines 19-23, column 30, lines 47-67*), Mauney lacks a teaching of the terminal comprising a module for estimating a distance between two terminals; and for switching an operation frequency of the terminal from the first frequency band to the second frequency band if the distance between the two terminals is smaller than a predetermined value.

In a similar mobile communication arrangement where mobile units are switched from system controlled frequencies to direct mobile to mobile frequencies (*Grube see column 1, lines 60-65*), Grube teaches a device comprising:

means for estimating a distance between two terminals (*Grube teaches determining distance at either the system controller or mobile terminal as shown in figure 3, and as described on column 3, lines 60-65*); and

means for switching an operation frequency of each of these two terminals from a first frequency band to a second frequency band if the distance between the two terminals is smaller than a predetermined value (*Grube teaches switching the units from a first frequency to a second frequency if the distance is less than a threshold as shown in figure 2, item 202, 203, 207, figure 3, item 302, 305 and described in column 2, lines 55-65, column 3, lines 47-50*). Grube teaches that with this arrangement system communication resources may be more efficiently utilized by switching communication of short distance to a direct mode while reserving the system resources for wide range communication (*Grube see column 2, lines 25-30, and column 4, lines 10-16*).

It would have been obvious to one of ordinary skill in the art to modify Mauney to switch between the subscription and non-subscription bands using the estimated distance threshold arrangement means of Grube in order to provide that system communication resources may be more efficiently utilized by switching communication of short distance to a direct mode while reserving the system resources for wide range communication.

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8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mauney et al (US 6,484,027) in view of Grube et al (US 5,666,661) and further in view of Sainton et al (US 2005/0159179).

Consider claim 3. Mauney in view of Grube as applied to claim 2 above, lack a teaching of wherein the switching to the second telecommunication network depends on QOS assured by the second telecommunication network.

In a similar multi mode device Sainton teaches that various criteria should be weighed before switching from one mode to another, including the quality of service on the mode (*Sainton paragraph 90*). Sainton teaches that users desire high quality service (*Sainton paragraph 14*). It would have been obvious to one of ordinary skill in the art to modify Mauney in view of Grube to have the mode change (i.e. switching to the second network) depend on quality of service in order to ensure users that the device would only be switched into an unacceptable level of service.

9. Claims 6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mauney et al (US 6,484,027) in view of Grube et al (US 5,666,661) and further in view of Dupray (US 2004/0266457).

Consider claim 6. (*Note the claim objection above*) Mauney in view of Grube as applied to claim 1, would comprise the steps of:

the calling terminal determining its own geographical position PA and a geographical position PB of a called terminal from the telecommunication network (*Grube teaches that the called or second terminal determines its own geographic*

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coordinates and conveys the position to the other unit as described in column 3, lines 53-62); and

the calling terminal calculating the distance that separates the calling terminal from the called terminal from the positions PA and PB (*Grube teaches the first or calling terminal determining the distance from the position as described on column 3, line 53 – column 4, line 10*).

Mauney in view of Grube lack a teaching of the units determining its own position by requesting it from the network.

Dupray teaches mobile unit determining position by requesting the position from the network (Dupray see paragraph 5, 145,154). It would have been obvious to one of ordinary skill in the art to modify the arrangement of Mauney in view of Grube to have the mobiles request the position from the network as taught by Dupray in order to reduce cost of the units for the users by eliminating the need for locating hardware in the mobile.

Consider claim 8. Mauney in view of Grube as applied to claim 1, would comprise the steps of:

a called terminal determining its own position and transmitting the geographical position PB to the calling terminal (*Grube teaches that the called or second terminal determines its own geographic coordinates and conveys the position to the other unit as described in column 3, lines 53-62*);

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and the calling terminal determining its own position and calculating the distance that separates the calling terminal from the called terminal according to positions PA and PB (*Grube teaches the terminal determining the distance from the positions column 3, line 53 – column 4, line 10*).

Mauney in view of Grube lack a teaching of the units determining its own position by requesting it from the network.

Dupray teaches mobiles unit determining position by requesting the position from the network (Dupray see paragraph 5, 145,154). It would have been obvious to one of ordinary skill in the art to modify the arrangement of Mauney in view of Grube to have the mobiles request the position from the network as taught by Dupray in order to reduce cost of the units for the users by eliminating the need for locating hardware in the mobile.

As to claim 9, note that in Mauney in view of Grube and further in view of Dupray as applied to claim 8 above, since the location exchange and distance calculating takes place before the unit switches to the second direct frequencies, it is the first network that would be used in the estimating (*see Grube column 3, line 53 – column 4, line 10*).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Ma et al (US 5,995,500) is another arrangement for switching from cellular to direct mode communications. Note that, like Mauney, while Ma switches based on range, Ma lacks a teaching of actual distance calculation.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached Monday through Friday from 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4711.

12. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 3/31/06
PHILIP J. SOBUTKA
PATENT EXAMINER

Philip J Sobutka

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